

## ABSTRACT

The present invention relates generally to the fields diabetes. More particularly, it concerns the identification of genes responsible for NIDDM for use in diagnostics and therapeutics. The present invention demonstrates that the MODY3 locus is, in fact, the HNF1 $\alpha$  gene, MODY4 locus is the HNF1 $\beta$  and the MODY1 locus is the HNF4 $\alpha$  gene. The invention further relates to the discovery that analysis of mutations in the HNF1 $\alpha$ , HNF1 $\beta$  and HNF4 $\alpha$  genes can be diagnostic for diabetes. The invention also contemplates methods of treating diabetes in view of the fact that HNF1 $\alpha$ , HNF1 $\beta$  and HNF4 $\alpha$  mutations can cause diabetes.